# All that looks grave is not grievous. Not all those who wince are in pain

# Valorization addendum

**Relevance**

Validity assessment is an essential component of psychological and neuropsychological evaluations: Without it, there is no way to ascertain the validity of diagnostic data and the conclusions that are based thereon. This thesis presents and discusses data about the utility of several validity tests and indicators, and offers guidelines for the application of current methods of validity assessment, and recommendations on how to improve upon these methods.

Validity tests serve to pinpoint the extent to which a patient's symptom presentation accurately reflects their clinical condition. If there is a significant mismatch between a patient's symptom presentation and their clinical condition, and this mismatch remains undetected, then the patient will receive an incorrect diagnosis and a correspondingly inappropriate treatment. As a result, the patient's clinical condition may persist, or even worsen. Therefore, validity assessment, and, by extension, research into validity assessment, such as presented in this dissertation, is first and foremost in the interest of patients themselves.

Because the well-being of patients is a primary concern for healthcare practitioners, and validity assessment aids in the diagnosis of health problems, research on how to carry out and improve validity assessment is relevant for healthcare practitioners. In fact, the leading objective in writing this thesis has been to provide practitioners with empirically based recommendations as to the use of various validity tests and indicators. Moreover, the final part of Chapter 7, about the use of likelihood ratios to interpret and combine validity test data, was written primarily to present practitioners with a simple yet scientifically tenable approach to process validity test data.



Next to clinical settings, validity assessment is useful in settings where patients experience incentives to distort their symptom presentation, such as in legal and insurance contexts. Studies that aim to improve the accuracy and reliability of validity assessment are relevant to all stakeholders in such settings, because faulty validity assessment (i.e., false-positive or false-negative identifications of noncredible symptom presentations) may have severe consequences, such as erroneous verdicts or improper endowments of benefits.

Validity assessment can also improve the outcome of proceedings in research where the symptom presentations of patients are a crucial factor. For example, studies into causes, effects, or treatments of psychological or neuropsychological symptoms are critically dependent on the accuracy of the diagnoses of its participants: If a minority of participants misrepresents their clinical condition (e.g., feigns the condition that is being studied), then study results may be distorted. For instance, the effects of medication or therapeutic interventions may be resisted by individuals who feign or exaggerate symptomatology. Similarly, dose-response relationships may be obscured in samples that include individuals who present with symptoms in the (relative) absence of causal factors (e.g., present with cognitive impairment in the absence of brain injury).

In addition to being valuable to those directly involved in validity assessment (i.e., patients and practitioners), validity assessment has considerable consequences that are beneficial to society at large. These consequences are essentially financial: Feigned symptomatology that goes unnoticed leads to losses in labor productivity, wrongfully allocated healthcare resources, wasted healthcare research funds, unjustly awarded claims, and escalations in disability benefits and insurance compensations, which, ultimately, trigger increases in healthcare insurance premiums and taxes. The tripartite of productivity loss, resource waste, and rise in compensation costs, entails that even when the prevalence of feigned symptomatology is assumed to be low, the associated monetary burden for society is still considerable; in the order of billions: For example, in 2016, the expenditure of the United States on healthcare alone was 3.3 *trillion* dollars; a number in which productivity loss and compensation costs have yet to be factored in.

**Innovation**

Chapters 2 and 3 describe studies in which we investigated the assumption of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.) that antisocial features are predictive of noncredible symptom presentations. These studies are among the first that address this issue in Europe. Moreover, they are the first in which a signal detection theory approach is used to quantify the diagnostic utility of antisocial features for noncredible symptom presentations. The two studies reported in Chapter 2 also stand out because, unlike previous research, they involved contrasting settings; a therapeutic forensic setting (Study 1) and a punitive forensic setting (Study 2), and because they covered symptom underreporting (Study 1) and social desirability (Study 2) in addition to symptom overreporting. These are important assets because the association between biased symptom reporting and antisocial features may be context dependent, and because, depending on contextual factors, positively biased symptom presentations are equally plausible to be related with antisocial features. The study presented in Chapter 3 improves on earlier research by explicitly targeting specific features that may underlie the potential link between noncredible symptom presentations and antisocial personality disorder; namely deceitfulness, lack of remorse, and blame externalization.

Chapter 4 relates the only meta-analysis and systematic review of published Structured Inventory of Malingered Symptomatology (SIMS) data to date. To update and improve the guidelines of the official manual, which dates from 2005, we compiled and calculated diagnostic accuracy indices and normative scores of patients, claimants, defendants, nonclinical adults, and various experimental feigners. Based on the results of our meta-analysis and on a qualitative review of all published studies, we evaluated the strengths and weaknesses of the SIMS, and put forward amended guidelines for clinical practice.

The innovation of Chapter 5 lies in the translation and revival of the Malingering Scale Vocabulary and Abstraction test (MSVA). In contrast to most other performance

validity tests (PVTs), the MSVA does *not* target noncredible memory impairment; instead, it focusses on noncredible deficits in semantic knowledge and perceptual reasoning. After a few initial publications in the early 1990s, the MSVA failed to come into regular use and was not published about again. The lack of alternatives to memory-oriented PVTs drove us to translate the MSVA and examine its diagnostic potential through experiments in various samples, including children, forensic inpatients with intellectual disability, forensic inpatients with psychiatric symptoms, and undergraduate students.

In terms of novelty, Chapter 6 is the pinnacle of this dissertation; it chronicles our development of the Symptom and Disposition Interview (SDI). The SDI is a symptom validity test (SVT) with the unprecedented aspiration to distinguish between factitious and malingered symptom presentations. The differentiation between factitious and malingered symptomatology is imperative because the former constitutes a mental disorder, whereas the latter is mere deception. The two studies described in Chapter 6 are one of the first attempts to investigate the capacity of validity tests to differentiate between factitious and malingered presentations, and certainly the very first attempt to develop strategies to gauge the internal incentives that are associated with factitious disorder (i.e., the "need to assume the sick role").

Finally, Chapter 7 includes a primer on an unconventional technique to combine and interpret validity test data; the likelihood ratio. The use of likelihood ratios has still to catch on in practice, yet it offers multiple advantages over cut scores—the traditional method—to determine whether or not respondents present with noncredible symptomatology. Chiefly, it encourages practitioners to work transparently and scientifically, and, in the process, increase diagnostic probability and decrease diagnostic error. Therefore, we promoted the likelihood ratio approach to validity assessment by adding an explanation of the technique and its merits to Chapter 7.



**Valorization**

The knowledge that was generated through the studies presented in this dissertation serves to advance the clinical practice of validity assessment and the research that informs it. Our guiding principle in seeking out the avenues of research that this thesis showcases, was ever to maximize the clinical usefulness of the information that would be generated. We endeavored to gather data to improve the application and interpretation of existing methods, and to develop new insights and approaches to current practices. These ambitions are manifested in, for example, our focus on statistical analyses that capture the practical utility of a method (e.g., signal detection theory and receiver operating characteristic) and our extensive discussions of practical implications and guidelines. We also advanced our aspiration to further the practice of validity assessment by publishing the scholarship collected in this thesis in international, peer-reviewed journals, and by disseminating it through presentations and posters at international and national symposia, and via academic lectures, workshops, and tutorials.